

# MSCI SECOND QUARTER 2018

Earnings Presentation

August 2, 2018

# FORWARD – LOOKING STATEMENTS

- This earnings presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including without limitation, our full-year 2018 guidance. These forward-looking statements relate to future events or to future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements. In some cases, you can identify forward-looking statements by the use of words such as “may,” “could,” “expect,” “intend,” “plan,” “seek,” “anticipate,” “believe,” “estimate,” “predict,” “potential” or “continue,” or the negative of these terms or other comparable terminology. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond our control and that could materially affect our actual results, levels of activity, performance or achievements.
- Other factors that could materially affect actual results, levels of activity, performance or achievements can be found in MSCI’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017 filed with the Securities and Exchange Commission (“SEC”) on February 26, 2018 and in quarterly reports on Form 10-Q and current reports on Form 8-K filed or furnished with the SEC (herein, referred to as “Public Filings”). If any of these risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may vary significantly from what MSCI projected. Any forward-looking statement in this earnings presentation reflects MSCI’s current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to MSCI’s operations, results of operations, growth strategy and liquidity. MSCI assumes no obligation to publicly update or revise these forward-looking statements for any reason, whether as a result of new information, future events, or otherwise, except as required by law.

# OTHER INFORMATION

- Percentage changes and totals in this earnings presentation may not sum due to rounding.
- Percentage changes refer to the comparable period in 2017, unless otherwise noted.
- Gross sales include both recurring subscription and non-recurring sales as reported in Table 6: Sales and Retention Rate by Segment (unaudited) of the press release reporting MSCI's financial results for second quarter 2018.
- Foreign currency exchange rate fluctuations reflect the difference between the current period results as reported compared to the current period results recalculated using the foreign currency exchange rates in effect for the comparable prior period. While operating revenues adjusted for the impact of foreign currency fluctuations includes asset-based fees that have been adjusted for the impact of foreign currency fluctuations, the underlying AUM, which is the primary component of asset-based fees, is not adjusted for foreign currency fluctuations. Approximately two-thirds of the AUM are invested in securities denominated in currencies other than the U.S. dollar, and accordingly, any such impact is excluded from the disclosed foreign currency adjusted variances.

# Q2'18 – FINANCIAL RESULTS<sup>1</sup>

## Exceptional Revenue Growth

Revenue Growth Driven by Asset-Based Fees & Index Subscription

**+15%**

Subscription Run Rate Growth Reported / Organic

**+9% / +10%**

## Continued Operational Efficiency

Adj. EBITDA Margin (Expansion) / Operating Margin (Expansion)

**55.2% (+257 bps) /  
47.8% (+157 bps)**

Adj. EBITDA Growth / Operating Income Growth

**+20% / +19%**

## Tax / Capital Optimization

Effective Tax Rate / (YoY Reduction)

**25.3%  
(558 bps)**

Dividend Increase

**+53%**

Share Repurchases

**\$155 million**

**1.0 million shares**

**Outstanding  
EPS Growth**

Adjusted EPS

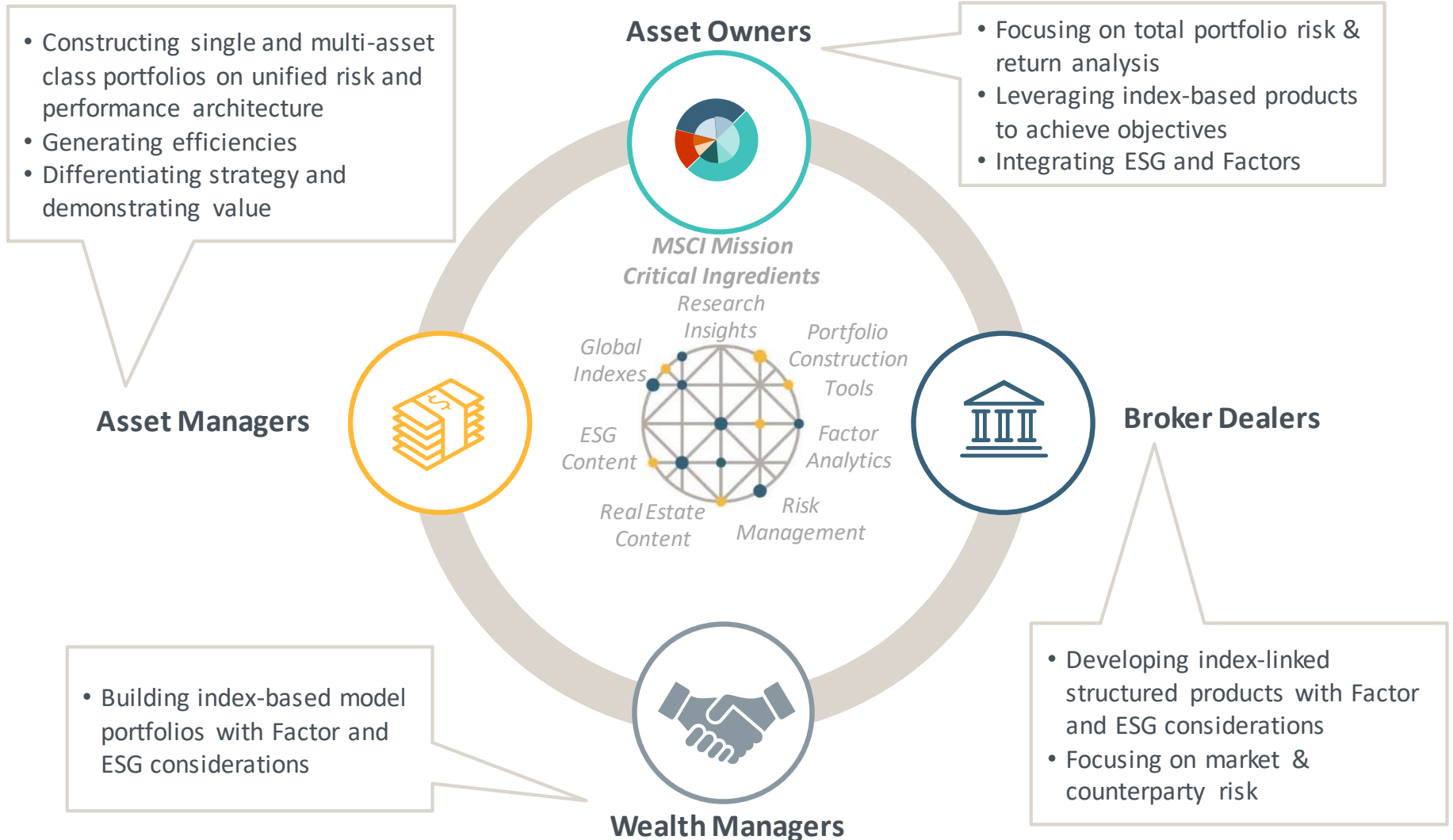
**+37%**

Diluted EPS

**+44%**

<sup>1</sup>Percentage and other changes refer to Q2 2017 unless otherwise noted.

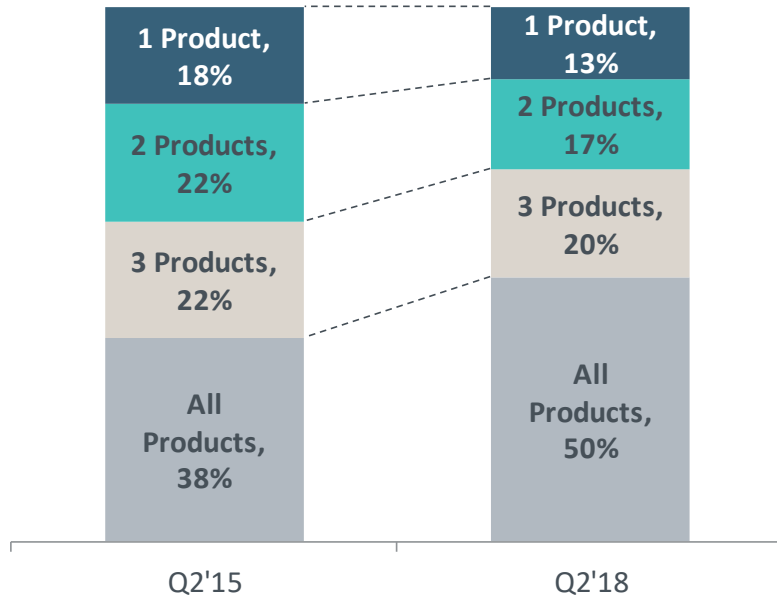
# INVESTMENT ECOSYSTEM AND CLIENT OPPORTUNITIES



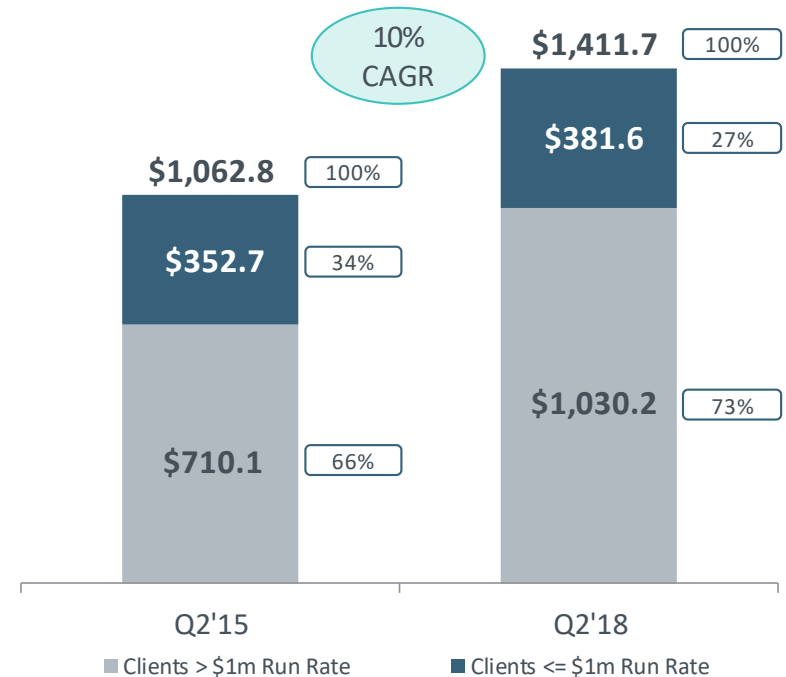
<sup>1</sup>Solutions refers to the usage of our products and / or services by our clients to help them achieve their specific investment objectives.

# GROWING OPPORTUNITY WITH ONE MSCI CONTENT

## Products<sup>1</sup> Purchased by Clients<sup>2</sup> % of Total Run Rate



## Run Rate by Client<sup>2</sup> Size



- Higher % of clients buying across all product lines
- One MSCI focus; solutions-based approach

- Clients buying more products, expanding usage
- Enhanced go-to-market strategy enabling growth

<sup>1</sup>Refers to products sold by our Index, Analytics, ESG and Real Estate segments.

<sup>2</sup>As of June 30, 2018, we had over 7,000 clients across 88 countries. To calculate the number of clients, we use the shipping address of the ultimate customer utilizing the product which counts affiliates, user locations, or business units within a single organization as separate clients. If we aggregate all related clients under their respective parent entity, the number of clients would be over 4,000, as of June 30, 2018. Run Rates above are based on parent entity.

# Q2'18 FINANCIAL SUMMARY

(US\$ in millions)

## Operating Revenue

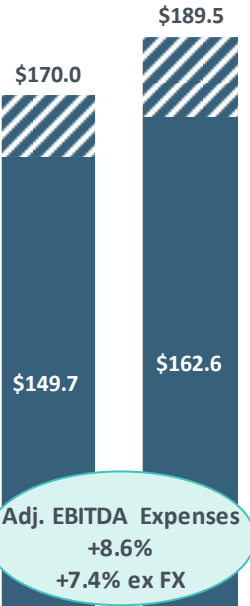
+14.9%  
+14.5% ex FX



Q2'17      Q2'18

## Operating Expenses

Operating Expenses  
+11.5%  
+10.3% ex FX



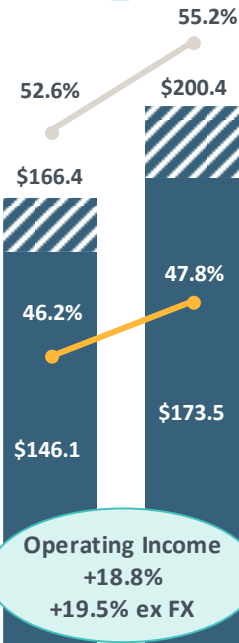
Adj. EBITDA Expenses  
+8.6%  
+7.4% ex FX

Q2'17      Q2'18

▨ = Depreciation and Amortization

## Operating Income

Adj. EBITDA  
+20.5%  
+20.9% ex FX



Operating Income  
+18.8%  
+19.5% ex FX

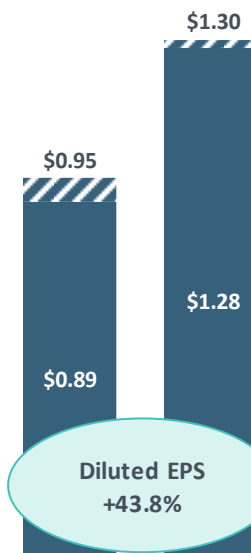
Q2'17      Q2'18

▨ = Depreciation and Amortization

● = Adj. EBITDA Margin  
● = Operating Margin

## Earnings Per Share

Adj. EPS  
+36.8%



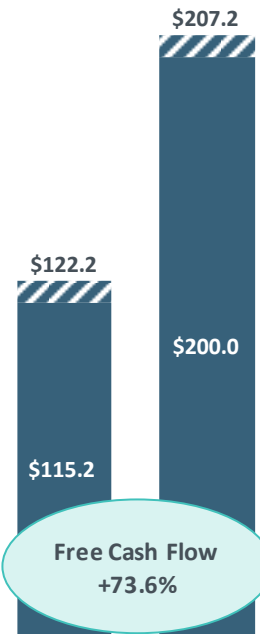
Diluted EPS  
+43.8%

Q2'17      Q2'18

▨ = Reflects the per diluted share addback of the after-tax impact of the amortization of acquired intangible assets, the impact of Tax Reform adjustments and, at times, certain other transactions or adjustments.

## Cash Generation

Cash from Operations  
+69.5%

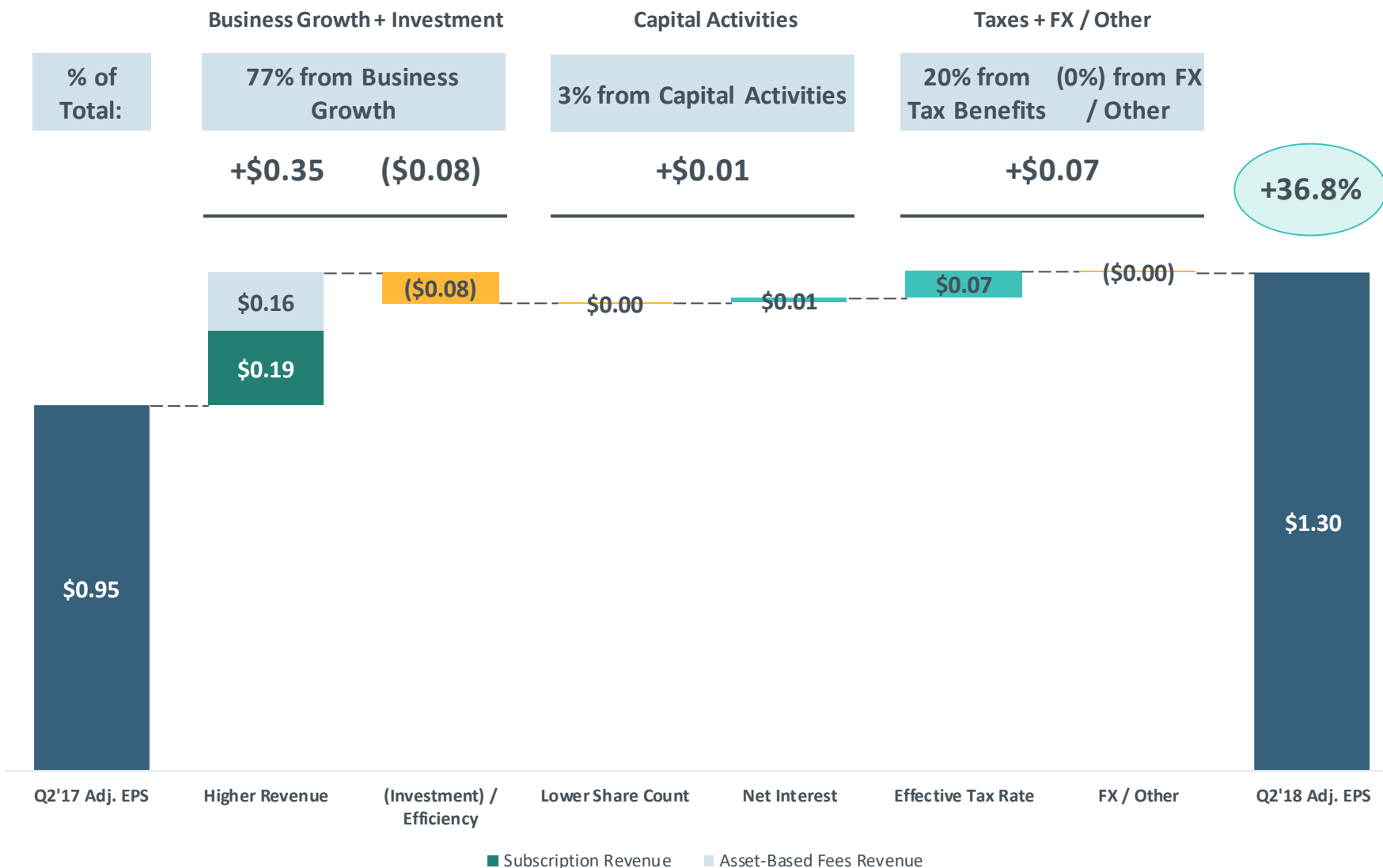


Free Cash Flow  
+73.6%

Q2'17      Q2'18

▨ = Capex

# Q2'18 VS. Q2'17 ADJUSTED EPS BRIDGE





# SEGMENT RESULTS

# Q2'18 SEGMENT RESULTS

	Operating Revenue	Adj. EBITDA	Year-over-Year Commentary
Index	<p>\$212.9m</p> <p><b>+20% YoY</b></p> <p>Negligible FX</p>	<p>\$157.5m</p> <p><b>+22% YoY</b></p> <p>74.0% Margin</p>	<ul style="list-style-type: none"> <li>• +13.2% recurring subscription revenue</li> <li>• +30.4% asset-based fee (ABF) revenue:               <ul style="list-style-type: none"> <li>• +28.4% in equity ETF-related revenue</li> <li>• +39.3% in non-ETF passive products revenue</li> <li>• +9.1% in exchange-traded futures and options revenue</li> </ul> </li> </ul>
Analytics	<p>\$119.1m</p> <p><b>+5% YoY</b></p> <p>+7% ex FX, ex FEA<sup>1</sup></p>	<p>\$36.3m</p> <p><b>+14% YoY</b></p> <p>30.5% Margin</p>	<ul style="list-style-type: none"> <li>• Strong operating performance translating into revenue</li> <li>• Solid demand for Factor analytics; Run Rate +7.7% YOY</li> <li>• Strength in asset owner and asset manager segments</li> <li>• Execution driving operating leverage and margin expansion</li> </ul>
All Other	<p>\$31.0m</p> <p><b>+21% YoY</b></p> <p>+18% ex FX</p>	<p>\$6.6m</p> <p><b>+30% YoY</b></p> <p>21.2% Margin</p>	<ul style="list-style-type: none"> <li>• Strong demand for ESG; revenue growth 26.2%               <ul style="list-style-type: none"> <li>• Strength across client segments and regions</li> </ul> </li> <li>• Real Estate revenue growth of 15.5%; 9.5% ex FX</li> <li>• Adjusted EBITDA margin expansion of 146 bps to 21.2%               <ul style="list-style-type: none"> <li>• Investments in coverage, research and technology</li> </ul> </li> </ul>

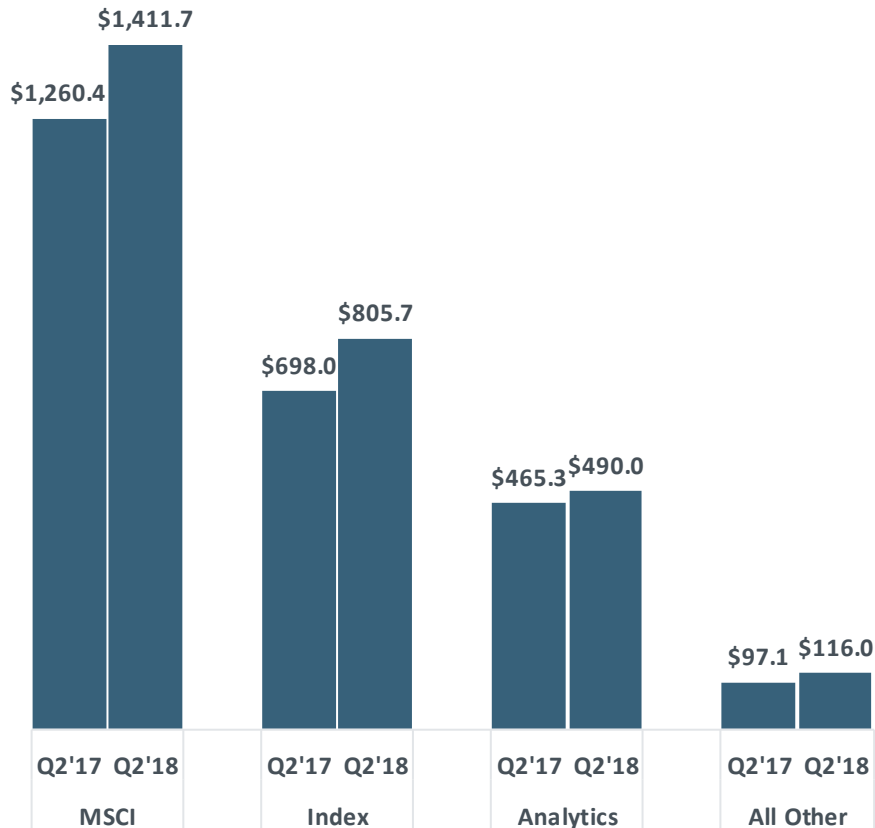
<sup>1</sup>ex FEA refers to excluding the impact of the divestiture of Financial Engineering Associates, Inc. ("FEA").

# CONTINUED OPERATING MOMENTUM

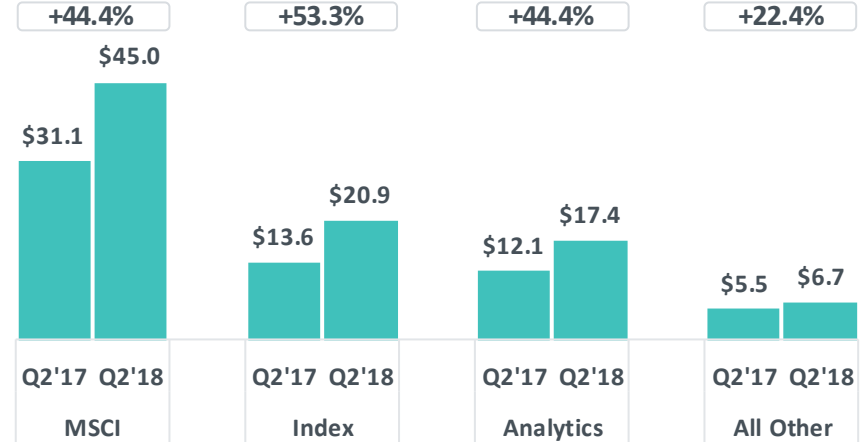
(US\$ in millions)

## YoY Run Rate Growth

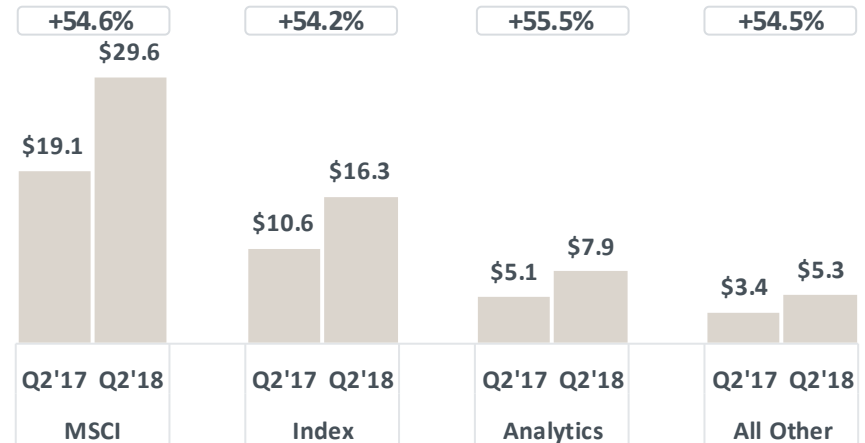
Total RR <sup>1</sup> (Reported)	+12.0%	+15.4%	+5.3%	+19.5%
Sub. RR <sup>1</sup> (organic)	+10.2%	+11.7%	+7.0%	+19.1%



## YoY Recurring Sales Growth



## YoY Recurring Net New Sales Growth

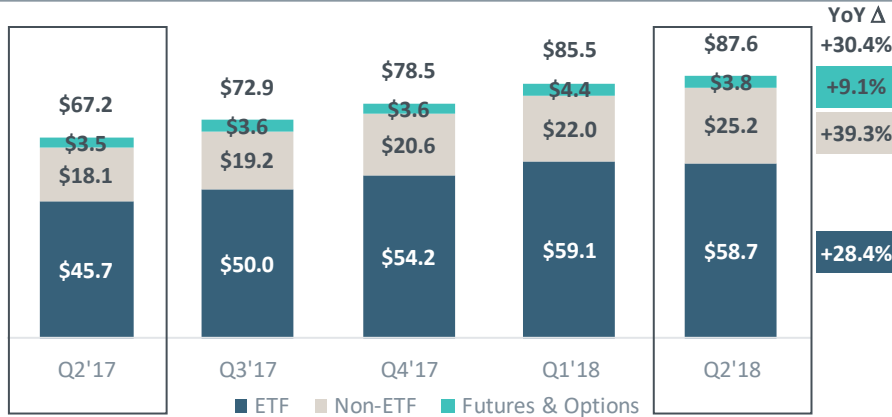


<sup>1</sup>Sub.: Subscription; RR: Run Rate.

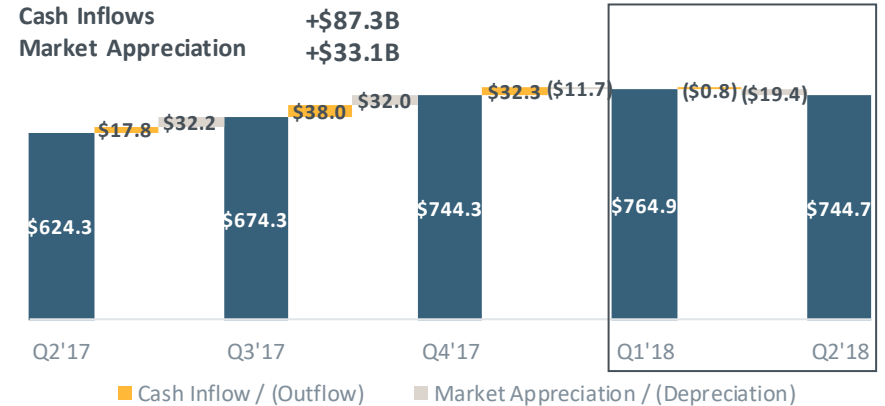
# INDEX SEGMENT – ASSET-BASED FEES DETAIL

(US\$ in millions, except AUM in billions and Average BPS)

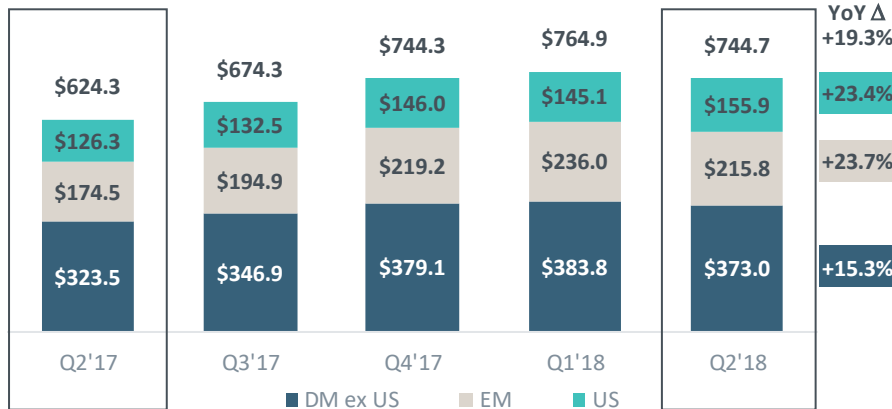
### Quarterly Asset-Based Fees Revenue Trend



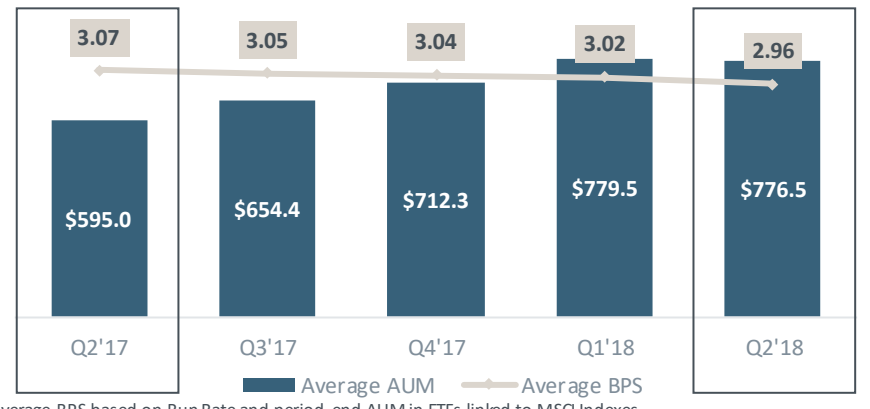
### Quarter-End AUM & Market Movement of ETFs Linked to MSCI Indexes



### Quarter-End AUM by Market Exposure<sup>1</sup> of ETFs Linked to MSCI Indexes



### Quarterly Avg. AUM and Avg. BPS<sup>2</sup> of ETFs Linked to MSCI Indexes



<sup>2</sup>Average BPS based on RunRate and period-end AUM in ETFs linked to MSCI Indexes.

<sup>1</sup>US = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities in MSCI Developed Market (DM) countries, primarily or exclusively in the US.

DM ex US = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities in MSCI DM countries other than the US.

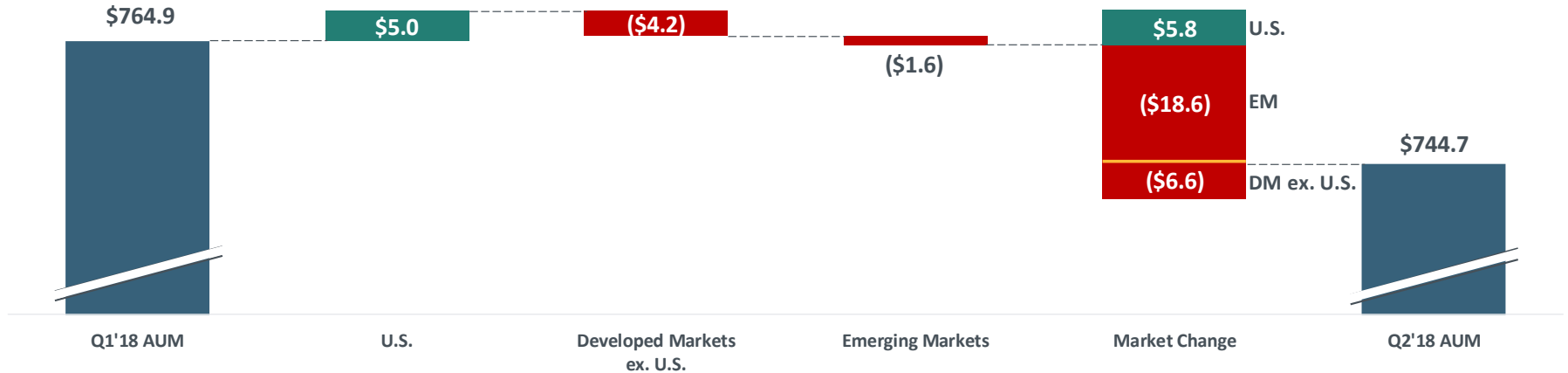
EM = ETFs linked to MSCI indexes, the majority of whose weight is comprised of securities that are not in MSCI DM countries.

Prior periods have been reclassified to conform to the current period classification.

Note: The AUM in ETFs also include AUM in Exchange Traded Notes, the value of which is less than 1.0% of the AUM amounts presented.

# Q2 & 1H'18 AUM DRIVERS: MSCI-LINKED EQUITY ETFs

## Q2'18 Sequential Change in AUM



## 1H'18 Change in AUM



# ANALYTICS SUBSCRIPTION RUN RATE GROWTH

Capabilities	Q2'18 Run Rate	YoY <sup>1</sup> %	Growth Drivers
Multi-Asset Class & Fixed Income	\$303 million 62% of Run Rate	+10%	<ul style="list-style-type: none"> <li>• Need for complete solutions across reporting, regulatory compliance and risk management</li> <li>• Continued outsourcing of “non-core” operations to improve efficiencies</li> </ul>
Equity	\$133 million 27% of Run Rate	+7%	<ul style="list-style-type: none"> <li>• Need for portfolio construction tools and integrated content</li> <li>• Increasing demand for Factor models, particularly China</li> <li>• Key ingredient for Factor Index</li> </ul>
Other	\$54 million 11% of Run Rate	(7%)	<ul style="list-style-type: none"> <li>• Migrating functionalities to enhance growing products</li> <li>• Divested non-core products (e.g., FEA, InvestorForce)</li> </ul>

**Q2'18 EBITDA Margins: 30.5%, +244 bps vs. Prior Year**

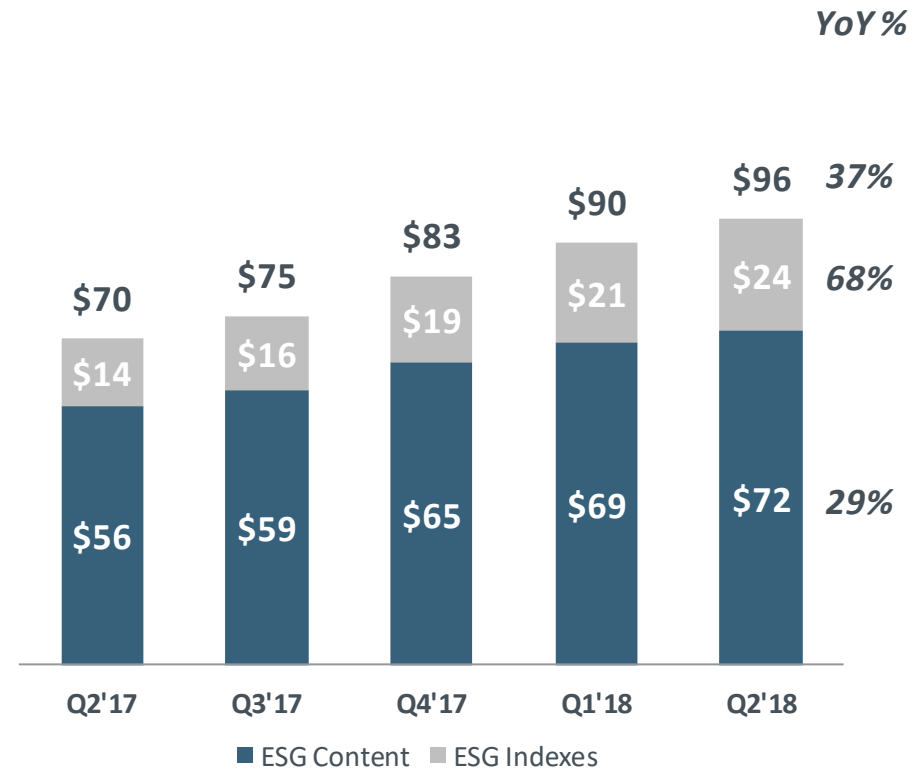
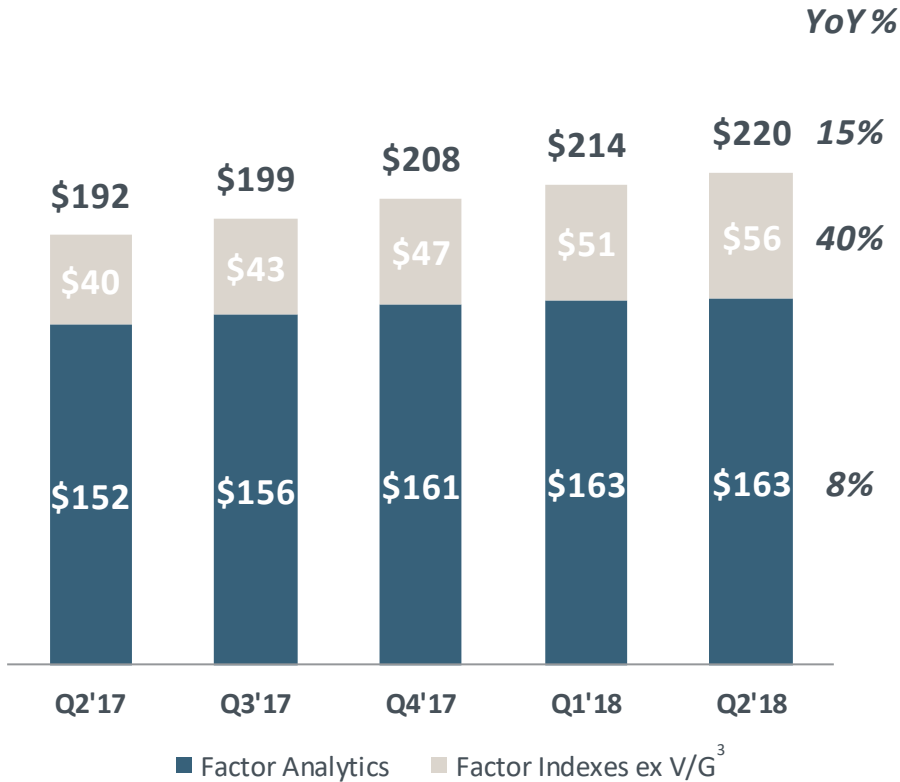
<sup>1</sup>YoY Run Rate growth is adjusted for the impact of the divestiture of FEA.

# INTEGRATED CONTENT INNOVATION

(US\$ in millions)

## Factor Index and Analytics Run Rate Growth<sup>1</sup>

## ESG Content and ESG Index Run Rate Growth<sup>2</sup>



<sup>1</sup>Factor Index Run Rate includes Factor related Index subscription and asset-based fees Run Rate, and Factor Analytics Run Rate includes Factor module Run Rate in the Analytics segment.

<sup>2</sup>ESG Research includes ESG segment Run Rate, and ESG Index includes ESG-related Index subscription Run Rate.

<sup>3</sup>V/G: Traditional value and growth product Run Rate for Indexes.

# CAPITAL, LIQUIDITY AND GUIDANCE



# CAPITAL AND LIQUIDITY

(US\$ in millions)

## Capital Position (As of 6/30/18)

<b>Total Cash</b>	<b>\$1,368</b>
<b>Total Debt<sup>1</sup></b>	<b>\$2,600</b>
<b>Net Debt<sup>1</sup></b>	<b>\$1,232</b>
<b>Total Debt / Adj. EBITDA</b>	<b>3.6x</b>
<b>Net Debt / Adj. EBITDA</b>	<b>1.7x</b>

## Continued Capital Discipline

### Return of Capital

- Board approved 53% increase to quarterly dividend (\$0.58 per share)

- **Increase in dividend payout ratio target to 40.0% - 50.0% of adjusted EPS**

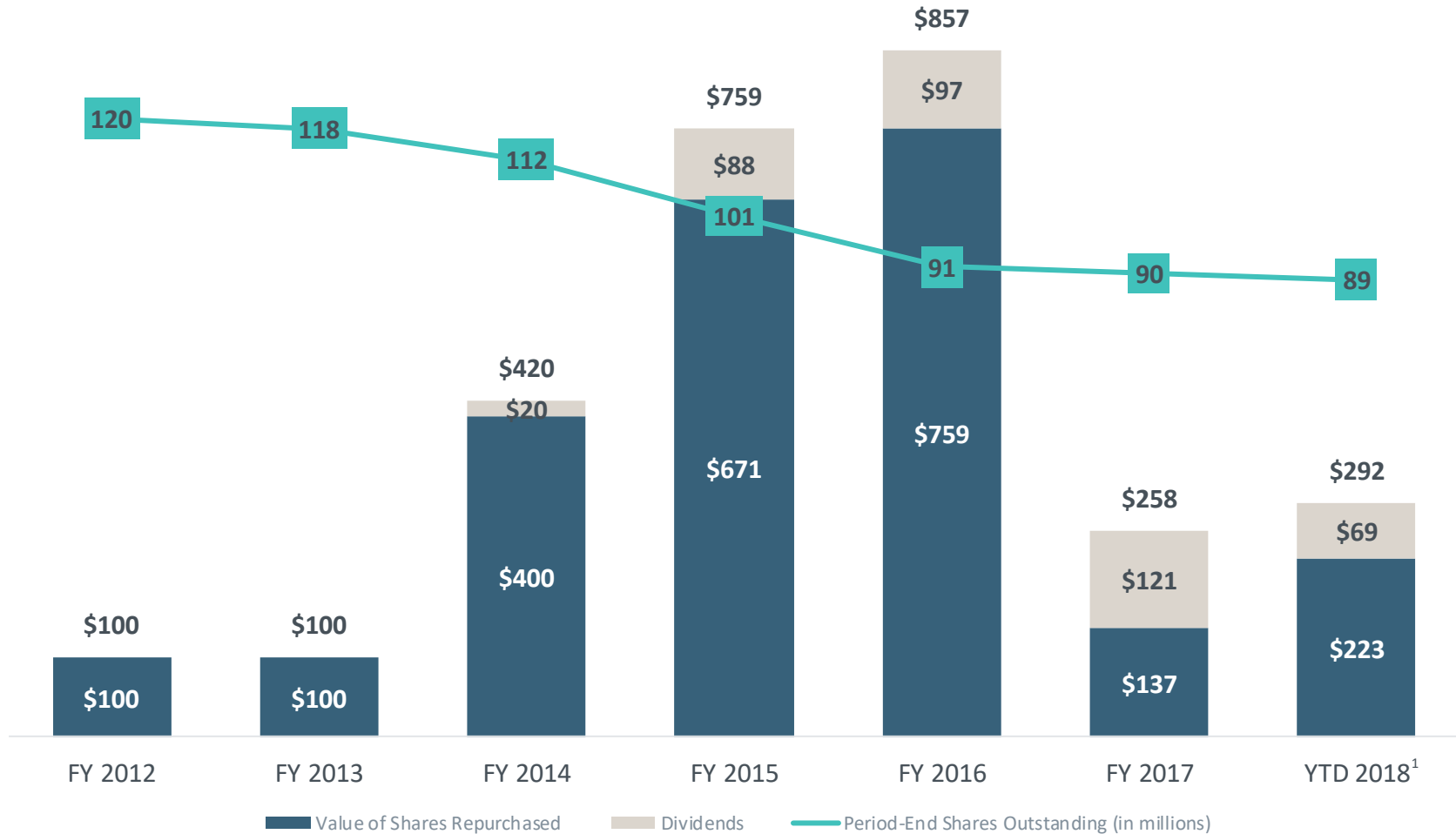
### Excess Cash

- Strong balance sheet provides optionality
- Disciplined and consistent approach to deployment

<sup>1</sup>Excludes deferred financing fees of \$26.3 million as of June 30, 2018.

# STRONG TRACK RECORD OF RETURNING CAPITAL

(US\$ in millions, except period-end shares)



<sup>1</sup>From January 1, 2018 through June 30, 2018.

# FULL YEAR 2018 GUIDANCE

(US\$ in millions)

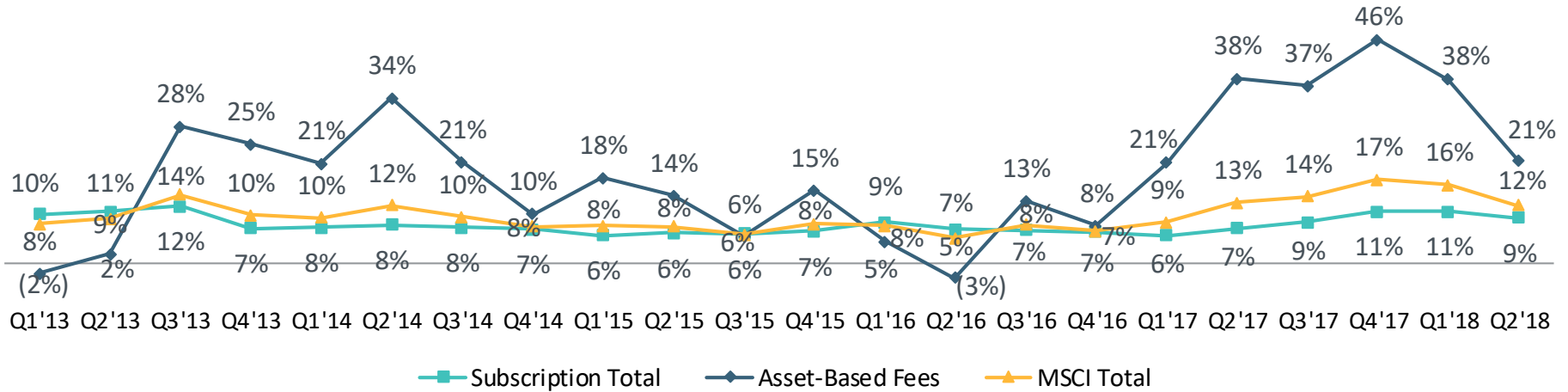
	Full Year 2018 Guidance	
	Previous	Current
Operating Expenses	\$725 - \$750	\$725 - \$750
Adjusted EBITDA Expenses	\$645 - \$665	\$645 - \$665
Interest Expense <sup>1</sup>	\$116	\$133
Effective Tax Rate	21.0% - 24.0%	21.0% - 24.0%
Net Cash Provided by Operating Activities	\$490 - \$540	\$490 - \$540
Capex	(\$50 - \$40)	(\$50 - \$40)
Free Cash Flow	\$440 - \$500	\$440 - \$500

<sup>1</sup>As previously disclosed in connection with the completion of the \$500 million notes offering on May 18, 2018, interest expense, including the amortization of financing fees, is now expected to be approximately \$133 million, assuming no additional financings.

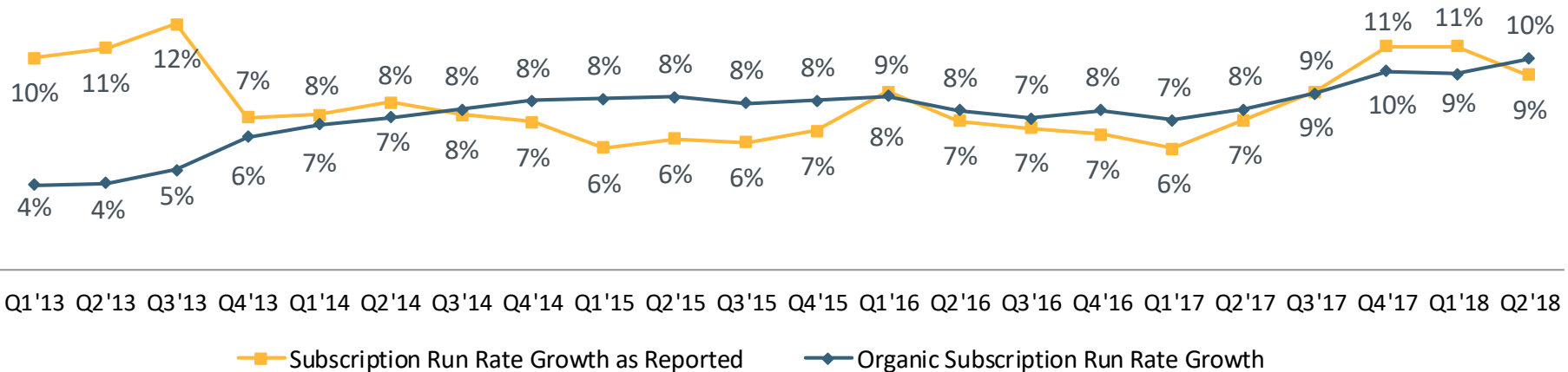
# APPENDIX

# Q1'13 – Q2'18 YoY RUN RATE GROWTH TREND

## YoY Run Rate Growth as Reported

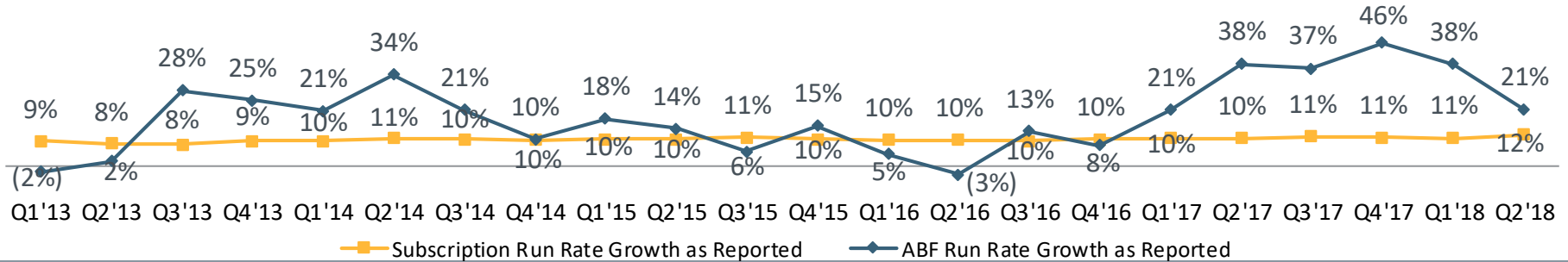


## YoY Subscription Run Rate Growth as Reported vs. Organic Growth

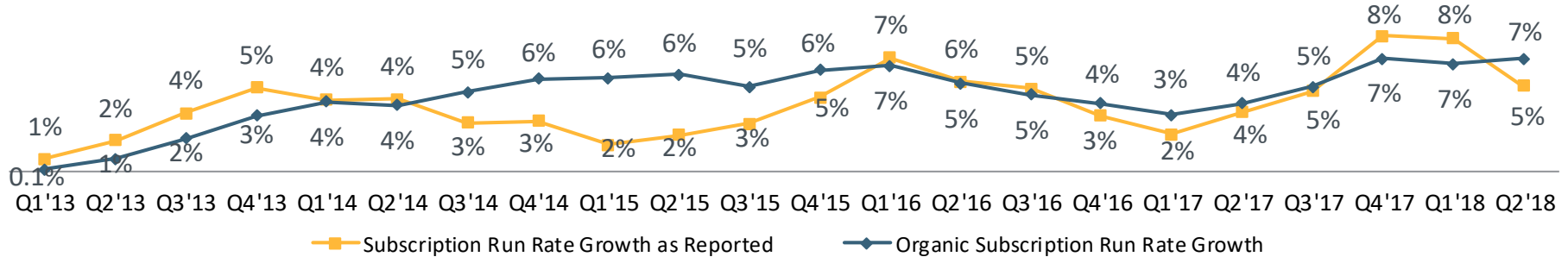


# Q1'13 – Q2'18 YoY SEGMENT RUN RATE GROWTH TREND

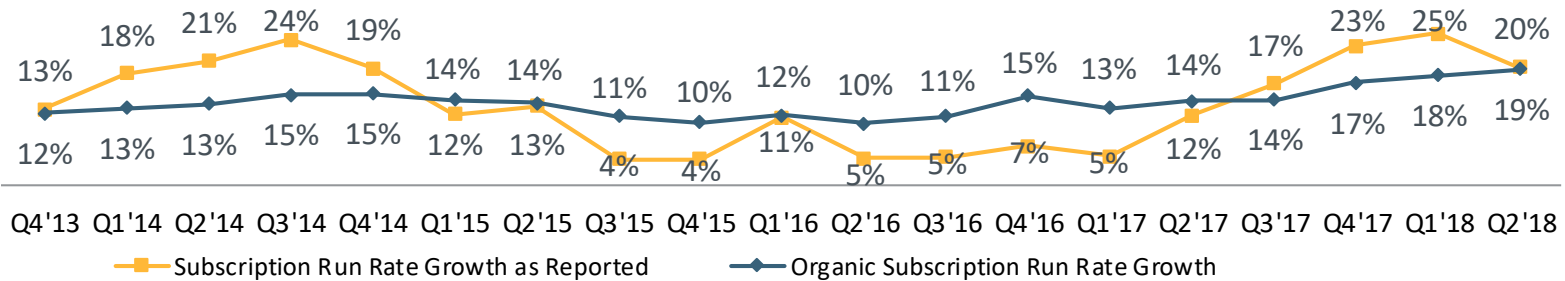
## Index



## Analytics



## All Other



# RECONCILIATION OF ADJUSTED EBITDA TO NET INCOME

In thousands	Three Months Ended			Six Months Ended	
	June 30, 2018	June 30, 2017(1)	Mar. 31, 2018	June 30, 2018	June 30, 2017(1)
Index adjusted EBITDA	\$ 157,516	\$ 129,519	\$ 145,929	\$ 303,446	\$ 245,196
Analytics adjusted EBITDA	36,327	31,805	33,593	69,920	61,405
All Other adjusted EBITDA	6,582	5,057	7,187	13,768	10,601
<b>Consolidated adjusted EBITDA</b>	<b>200,425</b>	<b>166,381</b>	<b>186,708</b>	<b>387,134</b>	<b>317,202</b>
Amortization of intangible assets	19,537	11,122	11,338	30,875	22,373
Depreciation and amortization of property, equipment and leasehold improvements	7,377	9,159	8,205	15,582	17,997
<b>Operating income</b>	<b>173,511</b>	<b>146,100</b>	<b>167,166</b>	<b>340,677</b>	<b>276,832</b>
Other expense (income), net	17,188	28,589	27,728	44,916	57,696
Provision for income taxes	39,494	36,245	24,346	63,840	64,919
<b>Net income</b>	<b>\$ 116,829</b>	<b>\$ 81,266</b>	<b>\$ 115,092</b>	<b>\$ 231,921</b>	<b>\$ 154,217</b>

<sup>1</sup>As a result of the adoption of recent accounting guidance, the Company has restated its adjusted EBITDA by reclassifying \$0.1 million and \$0.3 million of non-service related pension costs out of adjusted EBITDA expenses for the three and six months ended June 30, 2017, respectively.

# RECONCILIATION OF ADJUSTED NET INCOME AND ADJUSTED EPS TO NET INCOME AND EPS

In thousands, except per share data	Three Months Ended			Six Months Ended	
	June 30, 2018	June 30, 2017	Mar. 31, 2018	June 30, 2018	June 30, 2017
Net income	\$ 116,829	\$ 81,266	\$ 115,092	\$ 231,921	\$ 154,217
Plus: Amortization of acquired intangible assets	17,029	10,119	9,207	26,236	20,649
Less: Gain on divestiture	(10,636)	(771)	—	(10,636)	(771)
Less: Tax Reform adjustments	—	—	(1,601)	(1,601)	—
Less: Income tax effect	(4,121)	(3,146)	(1,608)	(5,729)	(6,118)
<b>Adjusted net income</b>	<b>\$ 119,101</b>	<b>\$ 87,468</b>	<b>\$ 121,090</b>	<b>\$ 240,191</b>	<b>\$ 167,977</b>
Diluted EPS	\$ 1.28	\$ 0.89	\$ 1.24	\$ 2.52	\$ 1.68
Plus: Amortization of acquired intangible assets	0.19	0.11	0.10	0.28	0.23
Less: Gain on divestiture	(0.12)	(0.01)	—	(0.12)	(0.01)
Less: Tax Reform adjustments	—	—	(0.02)	(0.02)	—
Less: Income tax effect	(0.05)	(0.04)	(0.01)	(0.05)	(0.07)
<b>Adjusted EPS</b>	<b>\$ 1.30</b>	<b>\$ 0.95</b>	<b>\$ 1.31</b>	<b>\$ 2.61</b>	<b>\$ 1.83</b>



# RECONCILIATION OF ADJUSTED EBITDA EXPENSES TO OPERATING EXPENSES

In thousands	Three Months Ended			Six Months Ended		Full-Year
	June 30, 2018	June 30, 2017(1)	Mar. 31, 2018	June 30, 2018	June 30, 2017(1)	2018 Outlook(2)
Index adjusted EBITDA expenses	\$ 55,418	\$ 47,637	\$ 55,984	\$ 111,402	\$ 95,395	
Analytics adjusted EBITDA expenses	82,792	81,562	85,395	168,186	164,382	
All Other adjusted EBITDA expenses	24,411	20,509	23,228	47,640	40,317	
<b>Consolidated adjusted EBITDA expenses</b>	<b>162,621</b>	<b>149,708</b>	<b>164,607</b>	<b>327,228</b>	<b>300,094</b>	<b>\$645,000 - \$665,000</b>
Amortization of intangible assets	19,537	11,122	11,338	30,875	22,373	
Depreciation and amortization of property, equipment and leasehold improvements	7,377	9,159	8,205	15,582	17,997	82,000
<b>Total operating expenses</b>	<b>\$ 189,535</b>	<b>\$ 169,989</b>	<b>\$ 184,150</b>	<b>\$ 373,685</b>	<b>\$ 340,464</b>	<b>\$725,000 - \$750,000</b>

<sup>1</sup>As a result of the adoption of recent accounting guidance, the Company has restated its adjusted EBITDA by reclassifying \$0.1 million and \$0.3 million of non-service related pension costs out of adjusted EBITDA expenses for the three and six months ended June 30, 2017, respectively.

<sup>2</sup>We have not provided a line-item reconciliation for adjusted EBITDA expenses to total operating expenses for this future period because we do not provide guidance on the individual reconciling items between total operating expenses and adjusted EBITDA expenses.

# RECONCILIATION OF FREE CASH FLOW TO NET CASH PROVIDED BY OPERATING ACTIVITIES

In thousands	Three Months Ended			Six Months Ended		Full-Year
	June 30, 2018	June 30, 2017	Mar. 31, 2018	June 30, 2018	June 30, 2017	2018 Outlook(1)
Net cash provided by operating activities	\$ 207,165	\$ 122,217	\$ 88,597	\$ 295,762	\$ 159,232	\$490,000 - \$540,000
Capital expenditures	(2,967)	(3,729)	(1,512)	(4,479)	(11,051)	
Capitalized software development costs	(4,238)	(3,306)	(4,360)	(8,598)	(5,613)	
Capex	(7,205)	(7,035)	(5,872)	(13,077)	(16,664)	(50,000 - 40,000)
<b>Free cash flow</b>	<b>\$ 199,960</b>	<b>\$ 115,182</b>	<b>\$ 82,725</b>	<b>\$ 282,685</b>	<b>\$ 142,568</b>	<b>\$440,000 - \$500,000</b>

<sup>1</sup>We have not provided a line-item reconciliation for free cash flow to net cash from operating activities for this future period because we do not provide guidance on the individual reconciling items between net cash from operating activities and free cash flow.

# RECONCILIATION OF EFFECTIVE TAX RATE TO ADJUSTED TAX RATE

	Three Months Ended			Six Months Ended	
	June 30, 2018	June 30, 2017	Mar. 31, 2018	June 30, 2018	June 30, 2017
Effective tax rate	25.26%	30.84%	17.46%	21.59%	29.63%
Less: Tax Reform impact on effective tax rate	—%	—%	1.15%	0.54%	—%
Adjusted tax rate	25.26%	30.84%	18.61%	22.13%	29.63%

# USE OF NON-GAAP FINANCIAL MEASURES

- MSCI has presented supplemental non-GAAP financial measures as part of this earnings presentation. Reconciliations are provided in slides 23-27 above that reconcile each non-GAAP financial measure with the most comparable GAAP measure. The non-GAAP financial measures presented in this earnings presentation should not be considered as alternative measures for the most directly comparable GAAP financial measures. The non-GAAP financial measures presented in this earnings presentation are used by management to monitor the financial performance of the business, inform business decision-making and forecast future results.
- “Adjusted EBITDA” is defined as net income before (1) provision for income taxes, (2) other expense (income), net, (3) depreciation and amortization of property, equipment and leasehold improvements, (4) amortization of intangible assets and, at times, (5) certain other transactions or adjustments.
- “Adjusted EBITDA expenses” is defined as operating expenses less depreciation and amortization of property, equipment and leasehold improvements and amortization of intangible assets and, at times, certain other transactions or adjustments.
- “Adjusted net income” and “adjusted EPS” are defined as net income and diluted EPS, respectively, before the after-tax impact of the amortization of acquired intangible assets, the impact of Tax Reform adjustments and, at times, certain other transactions or adjustments.
- “Adjusted tax rate” is defined as the effective tax rate excluding the impact of Tax Reform.
- “Capex” is defined as capital expenditures plus capitalized software development costs.
- “Free cash flow” is defined as net cash provided by operating activities, less Capex.
- We believe adjusted EBITDA and adjusted EBITDA expenses are meaningful measures of the operating performance of MSCI because they adjust for significant one-time, unusual or non-recurring items as well as eliminate the accounting effects of capital spending and acquisitions that do not directly affect what management considers to be our core operating performance in the period.
- We believe adjusted net income and adjusted EPS are meaningful measures of the performance of MSCI because they adjust for the after-tax impact of significant one-time, unusual or non-recurring items as well as eliminate the accounting effects of acquisitions that do not directly affect what management considers to be our core performance in the period.
- We believe that free cash flow is useful to investors because it relates the operating cash flow of MSCI to the capital that is spent to continue and improve business operations, such as investment in MSCI’s existing products. Further, free cash flow indicates our ability to strengthen MSCI’s balance sheet, repay our debt obligations, pay cash dividends and repurchase shares of our common stock.
- We believe that adjusted tax rate is useful to investors because it increases the comparability of period-to-period results by adjusting for the estimated net impact of Tax Reform.
- We believe that the non-GAAP financial measures presented in this earnings presentation facilitate meaningful period-to-period comparisons and provide a baseline for the evaluation of future results.
- Adjusted EBITDA expenses, adjusted EBITDA, adjusted net income, adjusted EPS, adjusted tax rate, Capex and free cash flow are not defined in the same manner by all companies and may not be comparable to similarly-titled non-GAAP financial measures of other companies.

# USE OF OPERATING METRICS

- MSCI has presented supplemental key operating metrics as part of this earnings presentation, including Run Rate, subscription sales and cancellations, non-recurring sales and Retention Rate.
- Retention Rate for a period is calculated by annualizing the cancellations for which we have received a notice of termination or for which we believe there is an intention not to renew during the period, and we believe that such notice or intention evidences the client's final decision to terminate or not renew the applicable agreement, even though such notice is not effective until a later date. This annualized cancellation figure is then divided by the subscription Run Rate at the beginning of the year to calculate a cancellation rate. This cancellation rate is then subtracted from 100% to derive the annualized Retention Rate for the period. Retention Rate is computed by segment on a product/service-by-product/service basis. In general, if a client reduces the number of products or services to which it subscribes within a segment, or switches between products or services within a segment, we treat it as a cancellation for reporting purposes, except in the case of a product or service switch that management considers to be a replacement product or service. In those replacement cases, only the net change to the client subscription, if a decrease, is reported as a cancel. In the Analytics and the ESG segments, substantially all product or service switches are treated as replacement products or services and netted in this manner, while in our Index and Real Estate segments, product or service switches that are treated as replacement products or services and receive netting treatment occur only in certain limited instances. In addition, we treat any reduction in fees resulting from a down-sale of the same product or service as a cancellation to the extent of the reduction. This definition of Retention Rate has been revised to describe our methodology for calculating cancellations. We believe this methodology has been applied in all material respects in calculating cancellation rates reported in the prior periods covered in our Form 10-K for the year ended December 31, 2017 and in our Form 10-Q for the quarter ended March 31, 2018, and accordingly, we do not believe changes to previously reported cancellation rates are required. Beginning in the second quarter 2018, "Aggregate Retention Rate" is referred to as "Retention Rate."
- Run Rate estimates at a particular point in time the annualized value of the recurring revenues under our client license agreements ("Client Contracts") for the next 12 months, assuming all Client Contracts that come up for renewal are renewed and assuming then-current currency exchange rates, subject to the adjustments and exclusions described elsewhere in our Public Filings. For any Client Contract where fees are linked to an investment product's assets or trading volume/fees, the Run Rate calculation reflects, for ETFs, the market value on the last trading day of the period, for futures and options, the most recent quarterly volumes, and/or reported exchange fees, and for other non-ETF products, the most recent client reported assets. Run Rate does not include fees associated with "one-time" and other non-recurring transactions. In addition, we add to Run Rate the annualized fee value of recurring new sales, whether to existing or new clients, when we execute Client Contracts, even though the license start date, and associated revenue recognition, may not be effective until a later date. We remove from Run Rate the annualized fee value associated with products or services under any Client Contract with respect to which we have received a notice of termination or non-renewal during the period and have determined that such notice evidences the client's final decision to terminate or not renew the applicable products or services, even though such notice is not effective until a later date.
- "Organic subscription Run Rate growth" is defined as the period over period Run Rate growth, excluding the impact of changes in foreign currency and the first year impact of any acquisitions. It is also adjusted for divestitures. Changes in foreign currency are calculated by applying the currency exchange rate from the comparable prior period to current period foreign currency denominated Run Rate.

**MSCI**

